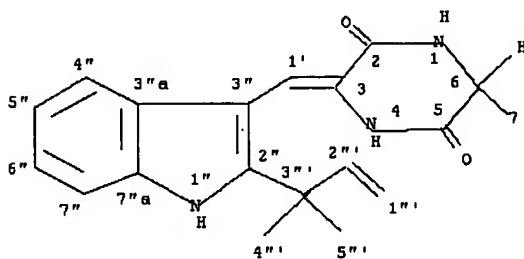
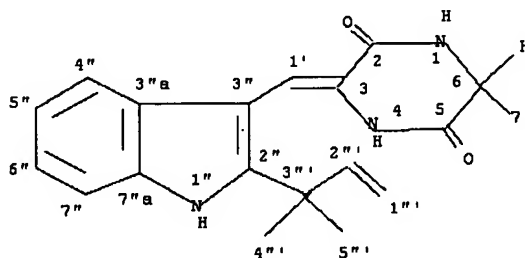


**We claim:**

1. 3,1'-didehydro-3 [2'' (3''', 3'''- dimethyl – prop – 2 - enyl) - 3''- indolyl methylene]-6 - methylpiperazine-2,5-dione extracted from a mangrove-associated fungus *Penicillium chrysogenum* having antibacterial activity, represented by a general formula  $C_{19}H_{21}O_2N_3$  and structural formula as shown below:



2. A compound as claimed in claim 1, wherein the said compound shows antibacterial activity against the human pathogen *Vibrio cholerae*.
3. A process of isolation of 3,1'-didehydro-3 [2'' (3''', 3'''- dimethyl – prop – 2 - enyl) - 3''- indolyl methylene]-6 - methylpiperazine-2,5-dione as shown below:



from a fungus *Penicillium chrysogenum*, said process comprising the steps:

- a) growing *Penicillium chrysogenum* in a fermentation broth comprising potato dextrose agar, sea water and distilled water;
  - b) extracting the fermentation broth with a solvent to obtain the filtrate;
  - c) evaporating the filtrate of step (b) to obtain a crude extract;
  - d) isolating the impure chrysogenazine from the crude extract of step (c) by chromatographic fractionation, and
  - e) purifying the impure chrysogenazine of step (d) using gel chromatography to obtain the pure chrysogenazine.
4. A process as claimed in claim 3, wherein in step (a), seawater and distilled water is mixed in 1:1 ratio.
  5. A process as claimed in claim 3, wherein in step (b), the solvent is selected from a group comprising of chloroform and ethyl acetate.
  6. A process as claimed in claim 5, wherein the solvent is chloroform.
  7. A process as claimed in claim 3, wherein in step (c), the evaporation is performed under vacuum.
  8. A process as claimed in claim 3, wherein in step (d), the chromatographic fractionation is performed by column chromatography and thin layer chromatography.
  9. A process as claimed in claim 8, wherein silica gel chromatography is used for fractionation.
  10. A process as claimed in claim 9, wherein in silica gel chromatography the eluent used is mixture of petroleum ether and ethyl acetate.
  11. A process as claimed in claim 9, wherein in the chromatography the adsorbent used is silica gel with a pore size of 60-120Å.

12. A process as claimed in claim 3, wherein in step (e), the adsorbent used in gel chromatography is Sephadex LH-20.
13. A process as claimed in claim 3, wherein in step (e), chloroform and methanol mixture is used as an eluent in gel chromatography.
14. A process as claimed in claim 13, wherein the chloroform and methanol are mixed in 1:1 ratio.
15. A process as claimed in claim 13, wherein *Penicillium chrysogenum* is *Penicillium chrysogenum*, bearing accession No. MTCC 5108.